

AMENDMENT TO THE CLAIMS

The following is a detailed listing of all claims that are, or were, in the Application.

1-14. (Canceled)

15. (Currently amended) A method implemented by an apparatus including a storage device and a controller for processing user history data stored in the storage device, the method comprising:

storing, in the storage device, a hierarchical data structure for describing user history, the hierarchical data structure including

(a) a user information element to identify a user, and

(b) a first and second user action history parts of the user as respective a first and second structural element[[s]] at the same level of the hierarchical data structure, the user information element including information to identify a user and the first and second user action history parts including respective

(b-1) a first data protection attribute to specify whether all information in the first user action history is protected or not, and

(b-2) a first and second list[[s]] of user action items for describing respective a first and second aspect[[s]] of the user's multimedia consumption including skipping or slow playing content, and

(c) a second user action history of the user as a second structural element at the same level of the hierarchical data structure as the first structural element, the second user action history including

(c-1) a second data protection attribute to specify whether all information in the second user action history is protected or not, and

(c-2) a second list of user action items for describing a second aspect of the user's media consumption including playing or recording a content stream,

wherein each user action item in both the first and second lists records a corresponding action of the user's consumption of content from a respective multimedia program and has (i) an action time indicating when the corresponding action of the user took

~~place and (ii) respective program identifier including a unique content reference identifier that identifies the consumed multimedia program independent of the multimedia program's location content and enables access to content related metadata that is not provided in the user history, and wherein the first user action history part has a first data protection attribute and the second user action history part has a second data protection attribute to specify whether information is protected in the first user action history part or in the second user action history part, respectively;~~

recording, in the first list of user action items history part, a first user action item corresponding to a first user action by the user, wherein the first user action is related to the first aspect of the user's multimedia consumption and includes skipping or slow playing a of a first piece of a first multimedia program content having a first unique content reference identifier that identifies the first piece of multimedia program content independent of its location, wherein recording the recorded first user action item includes assigning a first program identifier and a user action type to the first user action item, the first program identifier including the first unique content reference identifier and timing information for identifying the first skipped or slow played piece of the first multimedia program content, and the user action type representing an operation of skip, replay or slow play; and

using the first data protection attribute for specifying that information recorded in the first user action item about the first user action is protected in the first user action history part.

16. (Canceled)

17. (Currently amended) The method for processing user history data as claimed in claim 15, wherein each unique content reference identifier is a content reference ID (CRID) of a Content ID Forum (CIDF).

18. (Currently amended) The method for processing user history data as claimed in claim 15, wherein the second user action history part describes the aspect of the user's

consumption type and includes data that represents a first consumption type indicating how the user consumed content from the first piece of multimedia program content.

19. (Canceled)

20. (Currently amended) The method for processing user history data as claimed in claim 15, wherein the first user action history part describes the aspect of the user's consumption behavior and the user action type includes data that represents a consumption behavior for with respect to the first piece of multimedia program content.

21. (Currently amended) The method for processing user history data as claimed in claim 20, wherein the data that represents the consumption behavior user action type indicates a selection from an action type group including operations of normal play, skip, replay, and slow play.

22. (Currently amended) A method implemented by an apparatus including a storage device and a controller for processing user history data stored in the storage device, the method comprising:

storing, in the storage device, a hierarchical data structure for describing user history, the hierarchical data structure including

(a) a user information element to identify a user, and

(b) a first and second user action history of the user parts as respective a first and second structural element[[s]] at the same level of the hierarchical data structure, the user information element including information to identify a user and the first and second user action history parts including respective

(b-1) a first data protection attribute to specify whether all information in the first user action history is protected or not, and

(b-2) a first and second list[[s]] of user action items for describing respective a first and second aspect[[s]] of the user's multimedia consumption including skipping or slow playing content, and

(c) a second user action history of the user as a second structural element at the same level of the hierarchical data structure as the first structural element, the second user action history including

(c-1) a second data protection attribute to specify whether all information in the second user action history is protected or not, and

(c-2) a second list of user action items for describing a second aspect of the user's media consumption including playing or recording a content stream,

wherein each user action item in both the first and second lists records a corresponding action of the user's consumption of content from a respective multimedia program and has (i) an action time indicating when the corresponding action of the user took place and (ii) respective program identifier including a unique content reference identifier that identifies the consumed multimedia program independent of the multimedia program's location content and enables access to content related metadata that is not provided in the user history, and wherein the first user action history part has a first data protection attribute and the second user action history part has a second data protection attribute to specify whether information is protected in the first user action history part or in the second user action history part, respectively;

recording, in the first user action history part, a first user action item having a first program identifier and a user action type, the first program identifier and including a first unique content reference identifier that identifies a first piece of multimedia program content independent of its location, and the user action type representing a type of action that is related to consumption of content from the first piece of multimedia program and includes content, wherein the user action type represents an operation of skip, replay or slow play; and

assigning a protection value to the first data protection attribute to protect information in the recorded first user action item, the protection value specifying that all information recorded in the first user action history part is protected.

23. (Currently amended) The method for processing user history data according to claim 22, wherein the second user action history ~~part~~ describes the aspect of the user's consumption type and includes data that indicates how the user consumed content from the first multimedia program ~~a simple view or recording of the first piece of multimedia content~~.

24. (Currently amended) The method for processing user history data according to claim 22, wherein the first user action history ~~part~~ describes the aspect of the user's consumption behavior, and the user action type indicates a selection from an action type group including operations of normal play, skip, replay, and slow play.

25-30. (Canceled)

31. (Currently amended) The method of claim 15, wherein recording the first user action item ~~in the first user action history part~~ includes storing the first user action item in a portable medium.

32-33. (Canceled)

34. (Previously presented) The method of claim 15, wherein storing the hierarchical data structure ~~includes~~ storing the hierarchical data structure in a smart card.

35. (Previously presented) The method of claim 22, wherein storing the hierarchical data structure ~~includes~~ storing the hierarchical data structure in a smart card.